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Kjell Arne GAARDEN et al.
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AMENDMENTS UNDER PCT ARTICLE 34
(ARTICLE 34 AMENDMENTS)

International Application No. PCT/NO2004/000370

MAIL STOP - PCT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:


REQUEST FOR SUBSTITUTION OF REPLACEMENT SHEETS

Please substitute the attached replacement sheets 7-12 of the claims containing the Article 34 Amendments, for sheets 7-9 of the claims in the enclosed as-filed PCT application. It is respectfully requested that the claims in the substitute sheets be examined during examination of the patent application. Claims 1-45 are currently pending.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: June 1, 2006

By: 
Ernest F. Chapman
Reg. No. 25,961

EFC/FPD/blc

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**ANNEXES (AMENDED SHEETS) ATTACHED TO THE
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
RECEIVED ON FEBRUARY 13, 2006**

AMENDED PATENT CLAIMS 12.FEB. 2006

1. A scraping device for a conveyor belt (2) for installation essentially transverse to the longitudinal direction of the conveyor belt (2), which scraping device comprises a supporting structure (3) adapted to hold the scraping device in place across the conveyor belt (2), which scraping device is covering essentially the whole width of the conveyor belt (2) and consisting of a plurality of individual scraping segments (1') each of which consists of a body (7) with a scraping face (4), which scraping face (4) rests against the conveyor belt (2) where the scraping device comprises a number of segments (1') and that the scraping face (4) on each of the segments (1') is elastically connected to the supporting structure (3) and all the segments are covered by a flexible material, characterised in that the scraping device is mounted in a holder (12) where at least an area of the scraping device is fixedly connected to the holder (12) with a fixed connection (17) so that the scraping device can be bent in that there is provided one or more adjusting devices (14, 15, 16) at the underside and/or the upper side of the scraping device which push different parts of the scraping device against the conveyor belt (2).
2. A scraping device according to claim 1, characterised in that the scraping face is directed towards the conveyor belt.
3. A scraping device according to claims 1-2, characterised in that the scraping device is provided with one or more adjusting devices for adapting the scraping device to the curve of the drum over which the conveyor belt runs.
4. A scraping device according to claims 1-3, characterised in that the scraping face (4) is reinforced in the connection between the supporting structure (3) and the scraping face (4).
5. A scraping device according to claims 1-4, characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a resilient metal spring having a spring constant (k1).
6. A scraping device according to claims 1-5, characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a fibre-reinforced elastic material having spring constant (k1).

7. A scraping device according to claims 1-6,
characterised in that the spring constant (k) is selected so that the
scraper blades have an almost ideal angle of substantially 90 degrees to the
conveyor belt that is to be cleaned.
- 5 8. A scraping device according to claims 1-7,
characterised in that two or more of the segments (1') are connected
transverse to the scraping device to a reinforcing element having a spring constant
(k2).
- 10 9. A scraping device according to claims 1-8,
characterised in that the whole of or parts of the body (7) of the
scraper segments (1) are formed of an elastic material so that it forms the elastic
attachment for the scraping face.
10. A scraping device according to claims 1-9,
characterised in that the number of segments (1') is greater than five.
- 15 11. A scraping device according to claims 1-9,
characterised in that the number of segments (1') is greater than
eight.
12. A scraping device according to claims 1-9,
characterised in that the number of segments (1') is greater than
20 twelve.
13. A scraping device according to one or more of claims 1-12,
characterised in that two or more of the segments (1') have different
widths.
- 25 14. A scraping device according to claims 1-13,
characterised in that the flexible material covering the scraper
segments (1') is also an elastic material.
15. A scraping device according to claims 1-14,
characterised in that the scraping face (4) is formed of or with a
30 reinforcing material.
16. A scraping device for a conveyor belt (2) for installation essentially
transverse to the longitudinal direction of the conveyor belt (2), which scraping
device comprises a supporting structure (3) adapted to hold the scraping device in
35 place across the conveyor belt (2), which scraping device is covering essentially
the whole width of the conveyor belt (2) and consisting of a plurality of individual

- scraping segments (1') each of which consists of a body (7) with a scraping face (4), which scraping face (4) rests against the conveyor belt (2) where the scraping device comprises a number of segments (1') and that the scraping face (4) on each of the segments (1') is elastically connected to the supporting structure (3) and all the segments are covered by a flexible material,
- 5 characterised in that the scraping device is mounted in a holder (10, 12) where at least a part of the scraping device can be bent towards or away from the conveyor belt in that there is provided one or more adjusting devices (11, 13) at one of and/or both of the long sides of the scraping device which push different
- 10 parts of the scraping device towards or away from the conveyor belt (2).
17. A scraping device according to claim 16, characterised in that the scraping face is directed towards the conveyor belt.
18. A scraping device according to claims 16-17,
- 15 characterised in that the scraping device is provided with one or more adjusting devices for adapting the scraping device to the curve of the drum over which the conveyor belt runs.
19. A scraping device according to claims 16-18,
- 20 characterised in that the scraping face (4) is reinforced in the connection between the supporting structure (3) and the scraping face (4).
20. A scraping device according to claims 16-19,
- characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a resilient metal spring having a spring constant (k1).
- 25 21. A scraping device according to claims 16-20,
- characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a fibre-reinforced elastic material having spring constant (k1).
22. A scraping device according to claims 16-21,
- 30 characterised in that the spring constant (k) is selected so that the scraper blades have an almost ideal angle of substantially 90 degrees to the conveyor belt that is to be cleaned.
23. A scraping device according to claims 16-22,
- 35 characterised in that two or more of the segments (1') are connected transverse to the scraping device to a reinforcing element having a spring constant (k2).

24. A scraping device according to claims 16-23,
characterised in that the whole of or parts of the body (7) of the
scraper segments (1) are formed of an elastic material so that it forms the elastic
attachment for the scraping face.
- 5 25. A scraping device according to claims 16-24,
characterised in that the number of segments (1') is greater than five.
26. A scraping device according to claims 16-24,
characterised in that the number of segments (1') is greater than
eight.
- 10 27. A scraping device according to claims 16-24,
characterised in that the number of segments (1') is greater than
twelve.
28. A scraping device according to one or more of claims 16-27,
characterised in that two or more of the segments (1') have different
15 widths.
29. A scraping device according to claims 16-28,
characterised in that the flexible material covering the scraper
segments (1') is also an elastic material.
- 20 30. A scraping device according to claims 16-29,
characterised in that the scraping face (4) is formed of or with a
reinforcing material.
- 25 31. A scraping device for a conveyor belt (2) for installation essentially
transverse to the longitudinal direction of the conveyor belt (2), which scraping
device comprises a supporting structure (3) adapted to hold the scraping device in
place across the conveyor belt (2), which scraping device is covering essentially
the whole width of the conveyor belt (2) and consisting of a plurality of individual
scraping segments (1') each of which consists of a body (7) with a scraping face
30 (4), which scraping face (4) rests against the conveyor belt (2) where the scraping
device comprises a number of segments (1') and that the scraping face (4) on each
of the segments (1') is elastically connected to the supporting structure (3) and all
the segments are covered by a flexible material,
characterised in that the scraping device is mounted in a holder (12)
35 where at least an area of the scraping device is fixedly connected to the holder (12)
with a fixed connection (17) so that the scraping device can be bent in that there is
provided one or more adjusting devices (14, 15, 16) at the underside and/or the
upper side of the scraping device which push different parts of the scraping device

5 against the conveyor belt (2) and that at least a part of the scraping device can be bent towards or away from the conveyor belt in that there is provided one or more adjusting devices (11, 13) at one of and/or both of the long sides of the scraping device which push different parts of the scraping device towards or away from the conveyor belt (2).

10 32. A scraping device according to claim 31, characterised in that the scraping face is directed towards the conveyor belt.

33. A scraping device according to claims 31-32, characterised in that the scraping device is provided with one or more adjusting devices for adapting the scraping device to the curve of the drum over which the conveyor belt runs.

15 34. A scraping device according to claims 31-33, characterised in that the scraping face (4) is reinforced in the connection between the supporting structure (3) and the scraping face (4).

20 35. A scraping device according to claims 31-34, characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a resilient metal spring having a spring constant (k1).

25 36. A scraping device according to claims 31-35, characterised in that the scraping face (4) on each segment is connected to the supporting structure (3) by a fibre-reinforced elastic material having spring constant-(k1).

37. A scraping device according to claims 31-36, characterised in that the spring constant (k) is selected so that the scraper blades have an almost ideal angle of substantially 90 degrees to the conveyor belt that is to be cleaned.

30 38. A scraping device according to claims 31-37, characterised in that two or more of the segments (1') are connected transverse to the scraping device to a reinforcing element having a spring constant (k2).

35 39. A scraping device according to claims 31-38, characterised in that the whole of or parts of the body (7) of the scraper segments (1) are formed of an elastic material so that it forms the elastic attachment for the scraping face.

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40. A scraping device according to claims 31-39,
characterised in that the number of segments (1') is greater than five.
41. A scraping device according to claims 31-39,
characterised in that the number of segments (1') is greater than
5 eight.
42. A scraping device according to claims 31-39,
characterised in that the number of segments (1') is greater than
twelve.
43. A scraping device according to one or more of claims 31-42,
10 characterised in that two or more of the segments (1') have different
widths.
44. A scraping device according to claims 31-43,
characterised in that the flexible material covering the scraper
15 segments (1') is also an elastic material.
45. A scraping device according to claims 31-44,
characterised in that the scraping face (4) is formed of or with a
reinforcing material.

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